### RAW SEQUENCE LISTING PATENT APPLICATION US/09/042,460

DATE: 08/08/98 TIME: 15:56:28

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This Raw Listing contains the General Information Section and up to the first 5 pages.

1 2			SEQUENCE LISTIN	
3	(1) Ge	eneral Information:		ENTERED
4				
5	(i)	APPLICANT: Morin, G	regg B.	
6		Allsopp,	Richard	
7		DePinho,	Ronald	
8		Greenber	g, Roger	
9				
10	(ii)	TITLE OF INVENTION:	Mouse Telomerase Re	verse Transcriptase
11				•
12	(111)	NUMBER OF SEQUENCES	: 101	
13				
14	(iv)	CORRESPONDENCE ADDR		
15		(A) ADDRESSEE: Tow	nsend and Townsend a	nd Crew LLP
16		(B) STREET: Two Em	barcadero Center, Ei	ghth Floor
17		(C) CITY: San France		
18		(D) STATE: Californ		
19		(E) COUNTRY: USA		
20 21		(F) ZIP: 94111-383	4	
22	/\	COMPLETED DELLAR		
23	( 🗸 )	COMPUTER READABLE FO		
24		(A) MEDIUM TYPE: F	Loppy disk	
25		(B) COMPUTER: IBM I	C compatible	
26		(C) OPERATING SYSTE	M: PC-DOS/MS-DOS	
27		(D) SOFTWARE: Pater	ntIn Release #1.0, V	ersion #1.30
28	(vi) (	CURRENT APPLICATION	Dama.	
29	( • - / •	(A) ADDITONTON NIN	MBER: US 09/042,460	
30		(B) FILING DATE: 16	MAD 1000	
31		(C) CLASSIFICATION:		
32		(0) OLINDITICATION.	•	
33	(Vii) E	PRIOR APPLICATION DA	<b>ነጥ</b> ል •	
34	,	(A) APPLICATION NUM	(RER: 119 08/724 642	
35		(B) FILING DATE: 01	-OCT-1996	
36		, ,	. 001 1990	
37	(vii) E	PRIOR APPLICATION DA	TA:	
38		(A) APPLICATION NUM	IBER: US 08/844 419	
39		(B) FILING DATE: 18	-APR-1997	•
40				
41	(Vii) F	PRIOR APPLICATION DA	TA:	
42		(A) APPLICATION NUM	BER: US 08/846,017	
43		(B) FILING DATE: 25	-APR-1997	
44				
45	(vii) P	PRIOR APPLICATION DA	TA:	
46		(A) APPLICATION NUM	BER: US 08/851,843	

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/042,460

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4/	(B) FILING DATE: 06-MAY-1997	
48		
49	(vii) PRIOR APPLICATION DATA:	
50	(A) APPLICATION NUMBER: US 08/854,050	
51	(B) FILING DATE: 09-MAY-1997	
52	7.7	
53	(Vii) PRIOR APPLICATION DATA:	
54	(A) APPLICATION NUMBER: US 08/911,312	
55	(B) FILING DATE: 14-AUG-1997	
56		
57	(vii) PRIOR APPLICATION DATA:	
58	(A) APPLICATION NUMBER: US 08/912,951	
59	(B) FILING DATE: 14-AUG-1997	
60		
61	(vii) PRIOR APPLICATION DATA:	
62	(A) APPLICATION NUMBER: US 08/915,503	
63	(B) FILING DATE: 14-AUG-1997	
64		
65	(vii) PRIOR APPLICATION DATA:	
66	(A) APPLICATION NUMBER: WO PCT/US97/17618	
67	(B) FILING DATE: 01-OCT-1997	
68		
69	(Vii) PRIOR APPLICATION DATA:	
70	(A) APPLICATION NUMBER: WO PCT/US97/17885	
71	(B) FILING DATE: 01-OCT-1997	
72		
73	(Vii) PRIOR APPLICATION DATA:	
74	(A) APPLICATION NUMBER: US 08/974,549	
75	(B) FILING DATE: 19-NOV-1997	
76		
77	(Vii) PRIOR APPLICATION DATA:	
78	(A) APPLICATION NUMBER: US 08/974,584	
79	(B) FILING DATE: 19-NOV-1997	
80		
81	(Vii) PRIOR APPLICATION DATA:	
82	(A) APPLICATION NUMBER: US 08/979,742	
83	(B) FILING DATE: 26-NOV-1997	
84		
85	(Viii) ATTORNEY/AGENT INFORMATION:	
86	(A) NAME: Einhorn, Gregory P.	
87	(B) REGISTRATION NUMBER: 38,440	
88	(C) REFERENCE/DOCKET NUMBER: 015389-003110US	
89		
90 91	(ix) TELECOMMUNICATION INFORMATION:	
	(A) TELEPHONE: (415) 576-0200	
92	(B) TELEFAX: (415) 576-0300	
93		
94	/2) THEORYMETON TOP THE PROPERTY OF THE PROPER	
95 96	(2) INFORMATION FOR SEQ ID NO:1:	
96 97	(i) CROUPING GUIDIGED CONTRACTOR	
91 98	(i) SEQUENCE CHARACTERISTICS:	
99	(A) LENGTH: 3496 base pairs	
クプ	(B) TYPE: nucleic acid	

#### RAW SEQUENCE LISTING PATENT APPLICATION US/09/042,460

DATE: 08/08/98 TIME: 15:56:31

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic) (ix) FEATURE: (A) NAME/KEY: -(B) LOCATION: 1..3496 (D) OTHER INFORMATION: /note= "mouse telomerase reverse trascriptase (mTRT) cDNA clone" (ix) FEATURE: (A) NAME/KEY: misc feature (B) LOCATION: 10..3435 (D) OTHER INFORMATION: /note= "mouse telomerase reverse transcriptase (mTRT) cDNA" (ix) FEATURE: (A) NAME/KEY: CDS (B) LOCATION: 39..3404 (D) OTHER INFORMATION: /product= "mouse telomerase reverse transcriptase (mTRT)" (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1: GAATTCCGGG TGGGAGGCCC ATCCCGGCCT TGAGCACA ATG ACC CGC GCT CCT Met Thr Arg Ala Pro CGT TGC CCC GCG GTG CGC TCT CTG CTG CGC AGC CGA TAC CGG GAG GTG Arg Cys Pro Ala Val Arg Ser Leu Leu Arg Ser Arg Tyr Arg Glu Val TGG CCG CTG GCA ACC TTT GTG CGG CGC CTG GGG CCC GAG GGC AGG CGG Trp Pro Leu Ala Thr Phe Val Arg Arg Leu Gly Pro Glu Gly Arg Arg CTT GTG CAA CCC GGG GAC CCG AAG ATC TAC CGC ACT TTG GTT GCC CAA Leu Val Gln Pro Gly Asp Pro Lys Ile Tyr Arg Thr Leu Val Ala Gln TGC CTA GTG TGC ATG CAC TGG GGC TCA CAG CCT CCA CCT GCC GAC CTT 

Cys Leu Val Cys Met His Trp Gly Ser Gln Pro Pro Pro Ala Asp Leu TCC TTC CAC CAG GTG TCA TCC CTG AAA GAG CTG GTG GCC AGG GTT GTG Ser Phe His Gln Val Ser Ser Leu Lys Glu Leu Val Ala Arg Val Val CAG AGA CTC TGC GAG CGC AAC GAG AGA AAC GTG CTG GCT TTT GGC TTT Gln Arg Leu Cys Glu Arg Asn Glu Arg Asn Val Leu Ala Phe Gly Phe

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153					90					95	i			L	<i>NPU1</i>		S27965.raw
154																	
155	GAG	CTG	CTT	AAC	GAG	GCC	AGA	GGC	GGG	CCT	, ccc	ATG	GCC	TTC	ACT	AGT	389
156 157	GLU	Leu	Leu	ASN	GIU	Ата	Arg	GTA			Pro	Met	Ala	Phe	Thr	Ser	
157				105					110					115			
159	N CIC	ama	аат	3.00	m. a	mma	~~~										
160	Sor	Wal	CGT	AGC	TAC	TTG	Des	AAC	ACT	GTT	ATT	GAG	ACC	CTG	CGT	GTC	437
161	Ser	Val	Arg 120	Set	ıyı	Leu	PIO		Thr	vaı	тте	GTu			Arg	Val	
162			120					125					130				
163	ΔGT	CCT	GCA	TGG	አጥር	CITIA	OTHOR	mma	3.00	001	ama	~~~					
164	Ser	Glv	Ala	Trn	Mot	LAU	LOU	LOU	AGC	N-~	GTG	GGC	GAC	GAC	CTG	CTG	485
165		135		119	Mec	пец	140	ьeu	Ser	Arg	var			Asp	ren	Leu	
166							140					145					
167	GTC	TAC	CTG	CTG	GCA	CAC	ጥርነጥ	GCT	ርጥጥ	יייאייי	CITITO	стс	ama	aaa	000	3.00	522
168	Val	Tvr	Leu	Leu	Ala	His	Cvs	Δla	Len	Tur	Len	LOU	Ual	Dro	Dec	AGC	533
169	150	-				155	-1-		200	- 7 ~	160	пец	Val	FIU	PIO	165	
170											100					103	
171	TGT	GCC	TAC	CAG	GTG	TGT	GGG	TCT	CCC	CTG	TAC	CAA	Δ ጥጥ	ጥርነጥ	acc	ACC	581
172	Cys	Ala	Tyr	Gln	Val	Cys	Gly	Ser	Pro	Leu	Tvr	Gln	Tle	Cvs	Δla	Thr	201
173	_		-		170	-	2			175	-,-	<b></b>		Cys	180	1111	
174															100		
175	ACG	GAT	ATC	TGG	CCC	TCT	GTG	TCC	GCT	AGT	TAC	AGG	CCC	ACC	CGA	CCC	629
176	Thr	Asp	Ile	Trp	Pro	Ser	Val	Ser	Ala	Ser	Tvr	Ara	Pro	Thr	Ara	Pro	023
177				185					190		-	5		195	9		
178																	
179	GTG	GGÇ	AGG	AAT	TTC	ACT	AAC	CTT	AGG	TTC	TTA	CAA	CAG	ATC	AAG	AGC	677
180	Val	Gly	Arg	Asn	Phe	Thr	Asn	Leu	Arg	Phe	Leu	Gln	Gln	Ile	Lys	Ser	
181			200					205					210		•		
182																	
183	AGT	AGT	CGC	CAG	GAA	GCA	CCG	AAA	CCC	CTG	GCC	TTG	CCA	TCT	CGA	GGT	725
184	Ser	Ser	Arg	Gln	Glu	Ala		Lys	Pro	Leu	Ala	Leu	Pro	Ser	Arg	Gly	
185		215					220					225					
186 187	202	330	3.00	a.m	am a												
188	Th.×	AAG	AGG	CAT	CTG	AGT	CTC	ACC	AGT	ACA	AGT	GTG	CCT	TCA	GCT	AAG	773
189	230	гуѕ	Arg	HIS	Leu	ser	Leu	Thr	Ser	Thr		Val	Pro	Ser	Ala	_	
190	230					235					240					245	
191	ΔAG	GCC	ΔGA	TCC	ጥለጥ	ССП	CITIC	aaa	202	ama	a.a	~~~	~~.				
192	Lvs	Δla	AGA Arg	Cvs	Tur	Dro	Val	Dro	AGA	Unl	GAG	GAG	GGA	CCC	CAC	AGG	821
193	2,5	71_4	nr 9	cys	250	FIO	Val	PIO	Arg	AgT	GIU	GIU	GTA	Pro		Arg	
194					230					255					260		
195	CAG	GTG	CTA	CCA	ACC	CCA	יירי א	aac	λλλ	ጥር እ	таа	CTIC	CC A	λαm	aam	ССП	060
196	Gln	Val	Leu	Pro	Thr	Pro	Ser	Glv	T.ve	Cor	TGG	Val	Dro	AGI Com	Dwa	Al-	869
197				265				<b>-</b>	270	Del	тъ	vaı	FIU	275	PLO	АТА	
198									_,,					2/3			
199	CGG	TCC	CCC	GAG	GTG	CCT	ACT	GCA	GAG	AAA	GAT	ጥጥር	тст	יייטיד	ΔΔΛ	GGA	917
200	Arg	Ser	Pro	Glu	Val	Pro	Thr	Ala	Glu	Lvs	Asp	Leu	Ser	Ser	Lvs	Glv	3 <b>.</b> 1
201	_		280					285		-, -			290		-10	<b>-</b> -y	
202																	
203	AAG	GTG	TCT	GAC	CTG	AGT	CTC	TCT	GGG	TCG	GTG	TGC	TGT	AAA	CAC	AAG	965
204	Lys	Val	Ser	Asp	Leu	Ser	Leu	Ser	Gly	Ser	Val	Cys	Cvs	Lvs	His	Lvs	,03
205		295					300		-			305	<b>4</b> "-	<b>4</b> -		- , -	

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206														I	NPUT	SET:	S27965.raw
208	ccc	λαα	TOC	י אמא	T C T	ı ama	1 ama	. max									
208	Pro	Ser	Ser	· Thr	Cor	Tai	LO	TCA	L CCA	Dec	CGC	CAA	LAA 1	GCC	TTT	CAG	1013
209	310	201	501		Del	315	r Tec	Ser	. PIU	PIC			ı Asn	и Ала	Phe	Gln	
210	310					313	,				320	,				325	
211	СТС	AGG	CCA	րդող	ייייע א	GAG	י אכיר	י אמא	СУЛП	י יייייי	1 (1mm	п м с	. maa	3.00		GAT	1001
212	Leu	Ara	Pro	Phe	Tle	Glu	Thr	Aro	. Uic	Dho	LOU	TAC	Com	AGG	GGA	Asp	1061
213		5			330			9	, 1113	335		ııyı	Ser	Arg	340		
214										333	,				340		
215	GGC	CAA	GAG	CGT	CTA	AAC	ccc	TCA	ттс	. СТА	CTC	ΔGC	אמר	רייים	מאמ	CCT	1109
216	Gly	Gln	Glu	Arg	Leu	Asn	Pro	Ser	Phe	Leu	Leu	Ser	Asn	Len	Gln	Pro	1109
217	_			345					350					355		110	
218																	
219	AAC	TTG	ACT	GGG	GCC	AGG	AGA	CTG	GTG	GAG	ATC	ATC	TTT	CTG	GGC	TCA	1157
220	Asn	Leu	Thr	Gly	Ala	Arg	Arg	Leu	Val	Glu	Ile	Ile	Phe	Leu	Gly	Ser	
221			360					365					370		-		
222																	
223	AGG	CCT	AGG	ACA	TCA	GGA	CCA	CTC	TGC	AGG	ACA	CAC	CGT	CTA	TCG	CGT	1205
224	Arg	Pro	Arg	Thr	Ser	Gly			Cys	Arg	Thr	His	Arg	Leu	Ser	Arg	
225		375					380					385					
226 227	aa s	mag	шаа	a.a		~~~											
228	Ara	TAC	TGG	CAG	ATG	CGG	CCC	CTG	TTC	CAA	CAG	CTG	CTG	GTG	AAC	CAT	1253
229	390	ıyı	тгр	GIN	Met	395	Pro	Leu	Pne	GIN			Leu	Val	Asn		
230	370					333					400					405	
231	GCA	GAG	TGC	CAA	тат	GTC	AGA	משמ	ርጥር	λαα	ሞር እ	CATT	maa	) aa	mmm	CGA	1201
232	Ala	Glu	Cvs	Gln	Tyr	Val	Ara	Leu	I.em	Ara	Ser	Uic	Cvc	AGG A~~	Dho	CGA	1301
233			-		410		5			415	<b>D</b> C1	1113	Cys	Arg	420	AIG	
234										-1-0					420		
235	ACA	GCA	AAC	CAA	CAG	GTG	ACA	GAT	GCC	TTG	AAC	ACC	AGC	CCA	CCG	CAC	1349
236	Thr	Ala	Asn	Gln	Gln	Val	Thr	Asp	Ala	Leu	Asn	Thr	Ser	Pro	Pro	His	1317
237				425				_	430					435			
238																	
239	CTC	ATG	GAT	TTG	CTC	CGC	CTG	CAC	AGC	AGT	CCC	TGG	CAG	GTA	TAT	GGT	1397
240	Leu	Met		Leu	Leu	Arg	Leu	His	Ser	Ser	Pro	Trp	Gln	Val	Tyr	Gly	
241			440					445					450				
242 243	mmm	amm.	<b>a</b> aa	~~~													
243	Pho	CTT	A mar	GCC	TGT	CTC	TGC	AAG	GTG	GTG	TCT	GCT	AGT	CTC	TGG	GGT	1445
245	File	455	Arg	АТА	Cys	Leu		ьуs	var	Val	Ser		Ser	Leu	Trp	Gly	
246		433					460					465					
247	ACC	AGG	CAC	ייע מ	GAG	cac	caa	መመረ	mmm	220	***	mm x			mm a		
248	Thr	Ara	His	Δsn	Glu	Ara	Ara	Dho	Dho	AAG	AAC	TTA	AAG	AAG	TTC	ATC	1493
249	470	9		-1511	OIU	475	ALG	FIIE	FIIE	гуѕ	480	Leu	rAz	rÀs	Pne		
250											±00					485	
251	TCG	TTG	GGG	AAA	TAC	GGC	AAG	СТА	TCA	СТС	CAG	GAD	СТС	ΔТС	ጥርረ	ልልወ	1541
252	Ser	Leu	Gly	Lys	Tyr	Gly	Lys	Leu	Ser	Leu	Gln	Glu	Leu	Met	Trn	Lve	1941
253			_	-	490	-	4	_		495					500	<b>-</b> y 5	
254																	
255	ATG	AAA	GTA	GAG	GAT	TGC	CAC	TGG	CTC	CGC	AGC	AGC	CCG	GGG	AAG	GAC	1589
256	Met	Lys	Val	Glu	Asp	Cvs	His	Trn	Leu	Ara	Ser	Ser	Dro	G1 v	T tze	λαn	

Met Lys Val Glu Asp Cys His Trp Leu Arg Ser Ser Pro Gly Lys Asp

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## SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/09/042,460

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